

**Measuring Gear
Performance
on the
*R/V Albatross IV***

Trawl Performance

Monitored during each tow

Data from sensors mounted on doors, wings and headrope are transmitted to the ship and logged into a computer file at set time intervals

Quantitative Sensor Measurements

- **Headrope Height** – distance between the headrope and footrope, vertical opening of net
- **Wing Spread** – distance between the wings
- **Door Spread** – distance between the doors
- **Other parameters** – trawl speed, depth, and location

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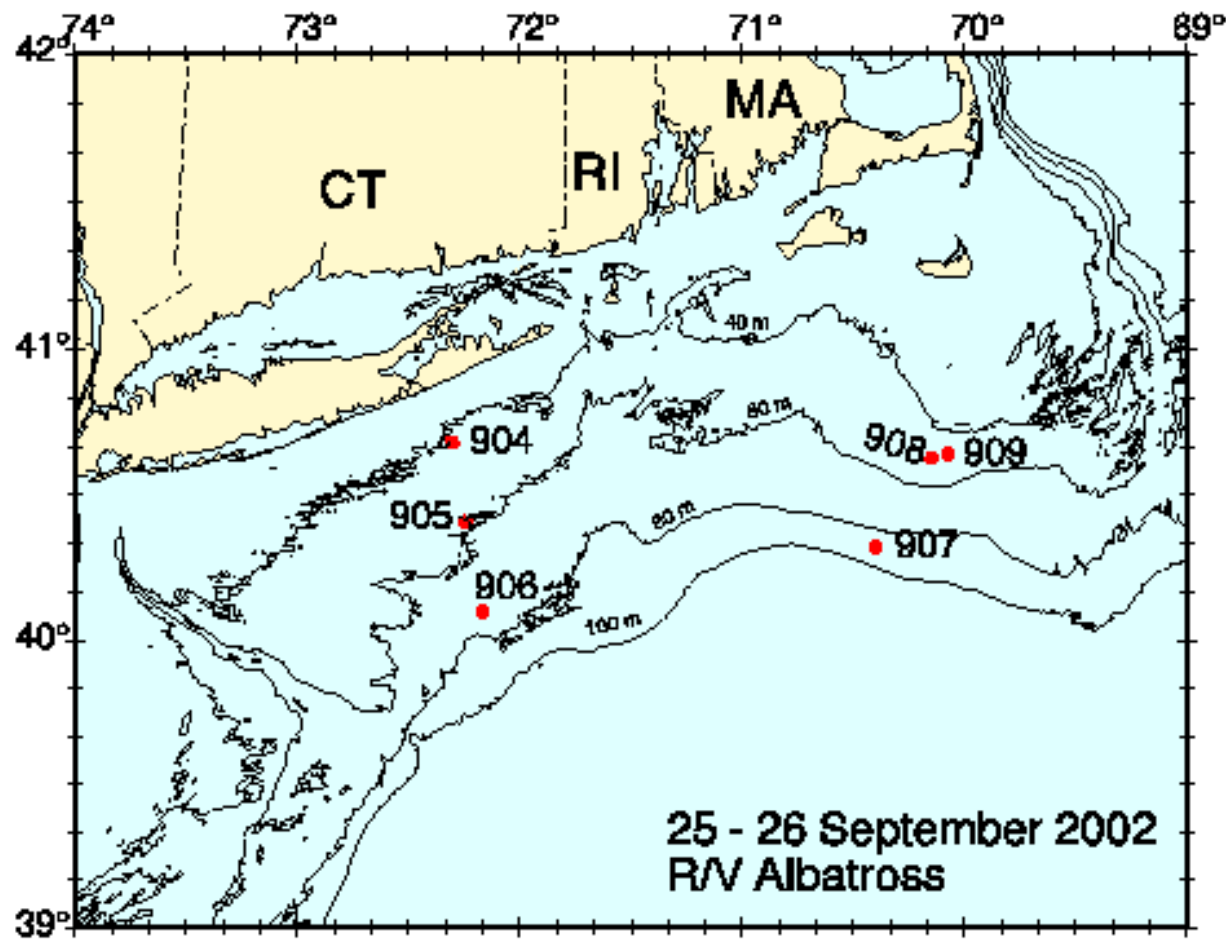
Sensor data can be used to determine whether the net is operating properly

We will examine sensor data from the trawl warp offset study to evaluate gear performance

Gear Performance Charts

**Data from six stations are presented in
order of shallow to deep locations
(46-91 m depth)**

Station Locations



Locations of Video and Sensor Experiments of Trawl Warp Offsets

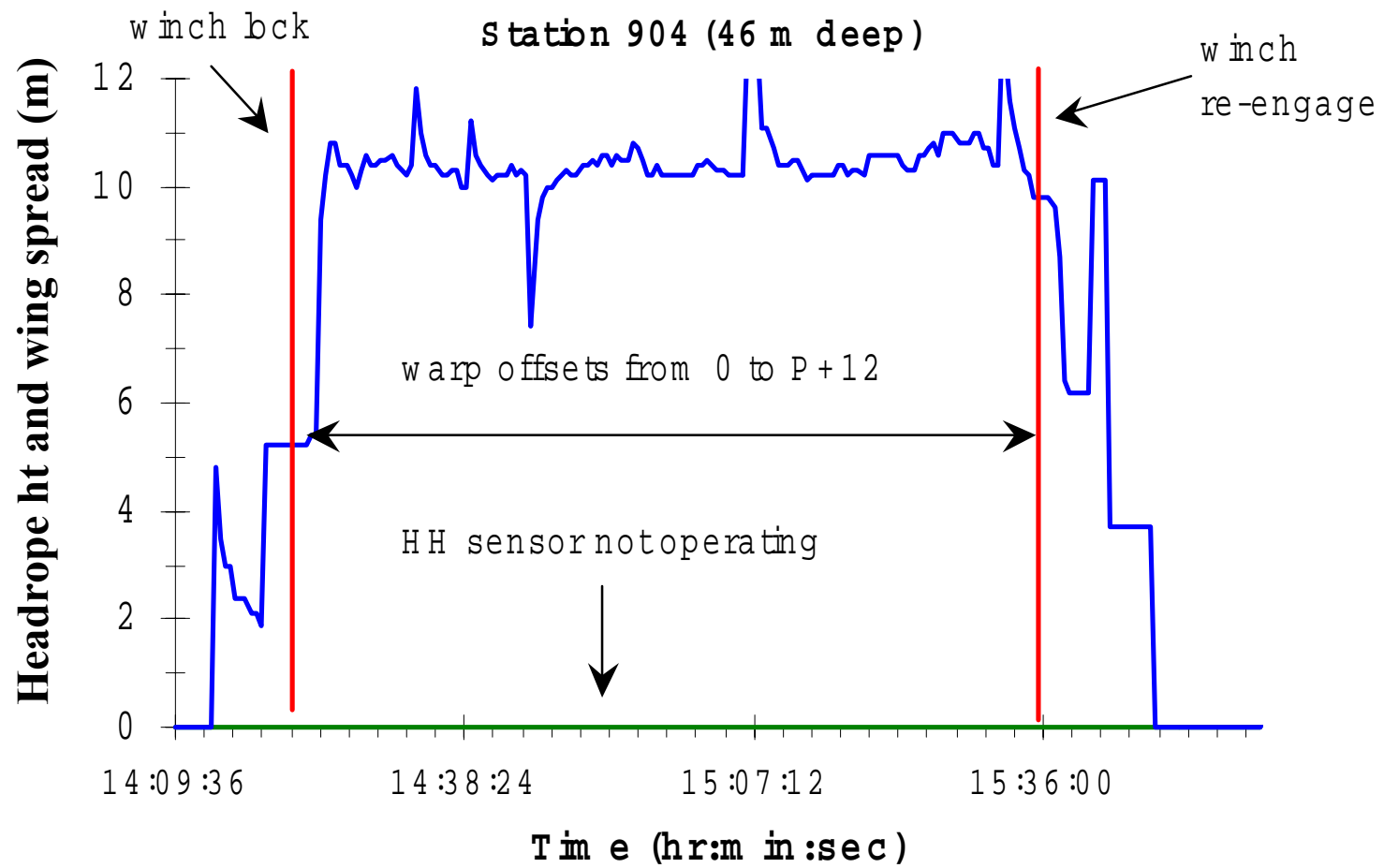
Gear Performance Charts

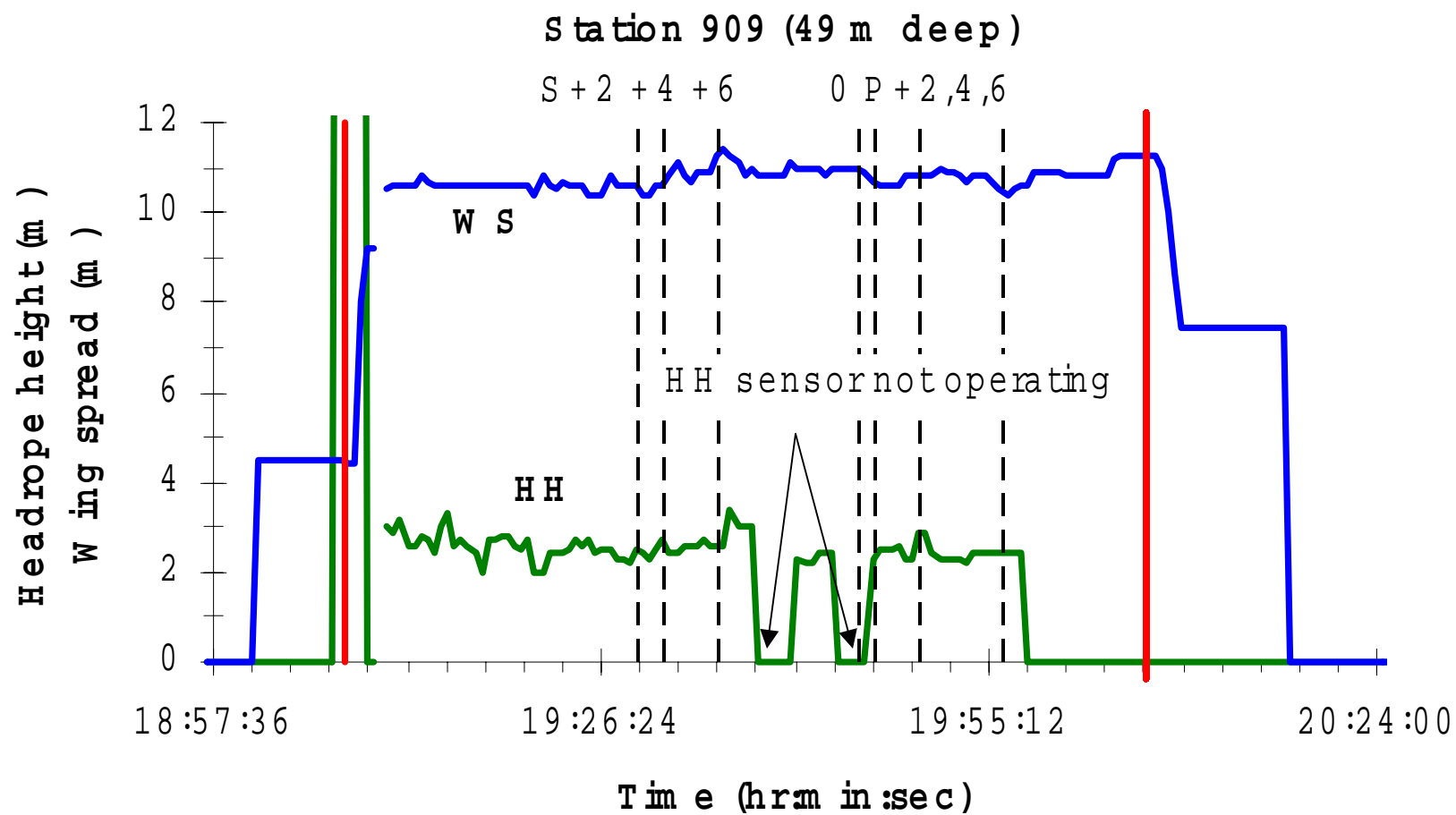
Data from six stations are presented in order of shallow to deep locations

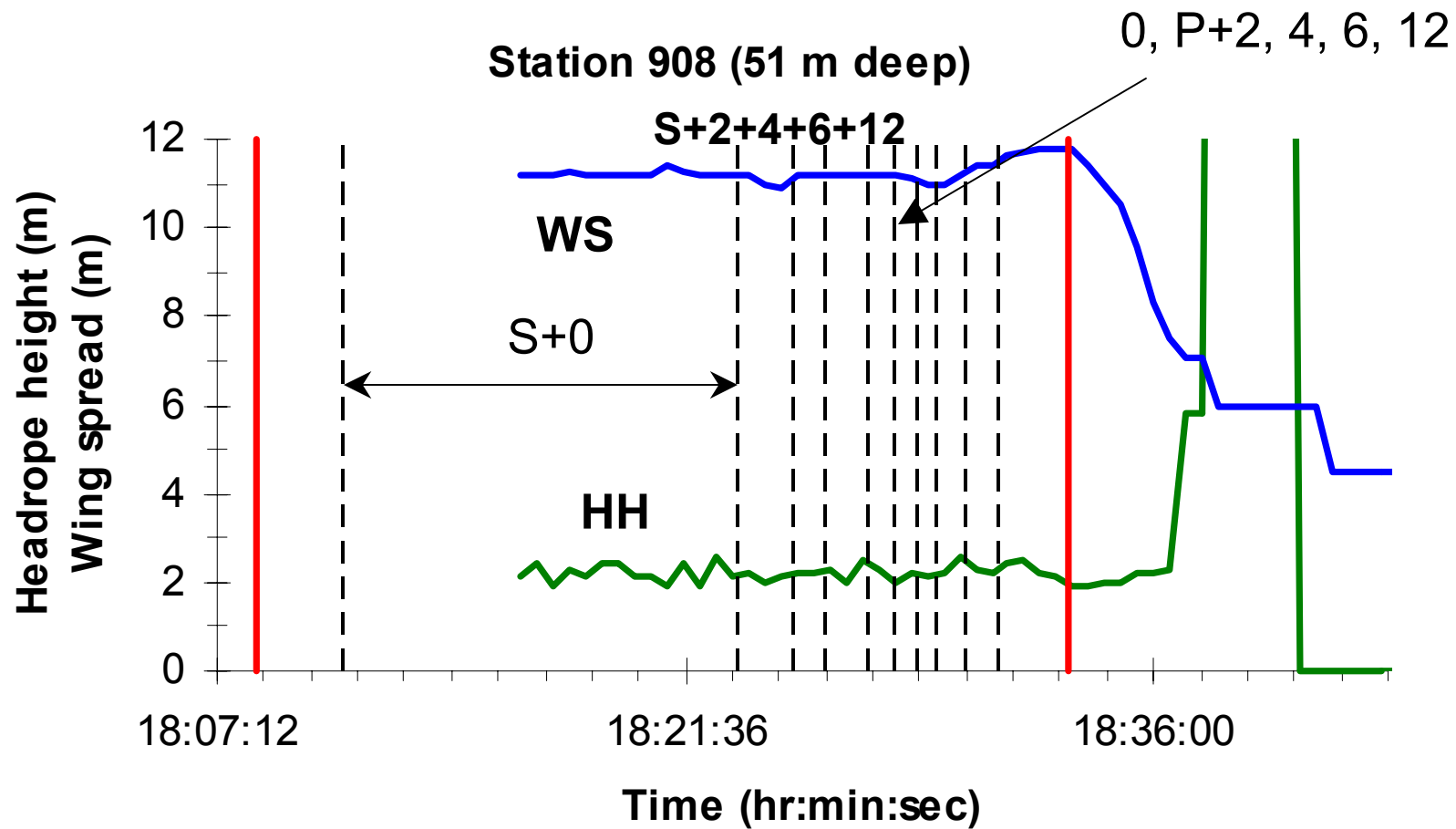
(46-91 m depth)

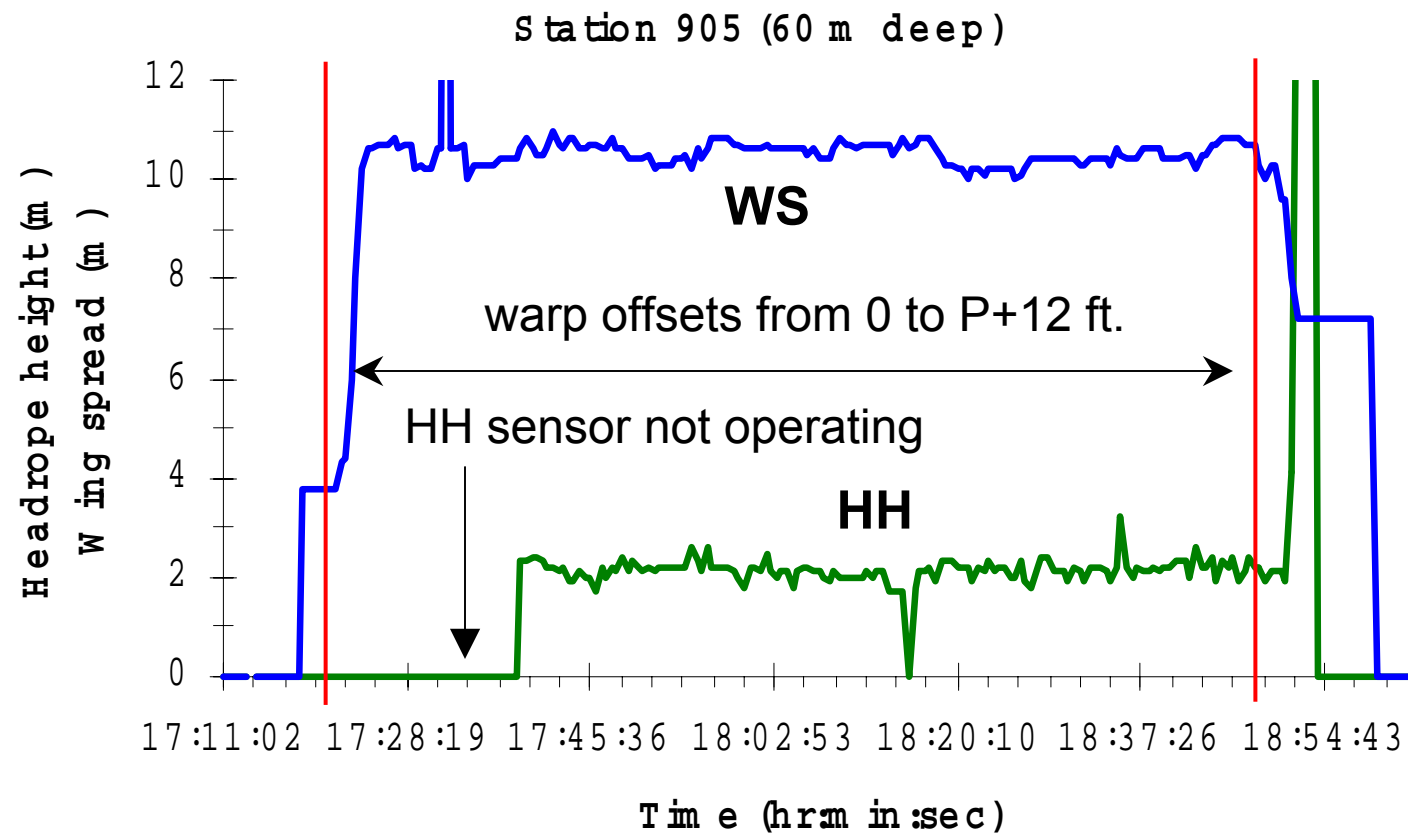
Changes over time, in HH and WS, are presented along with demarcations indicating the timing and type of trawl warp length offsets

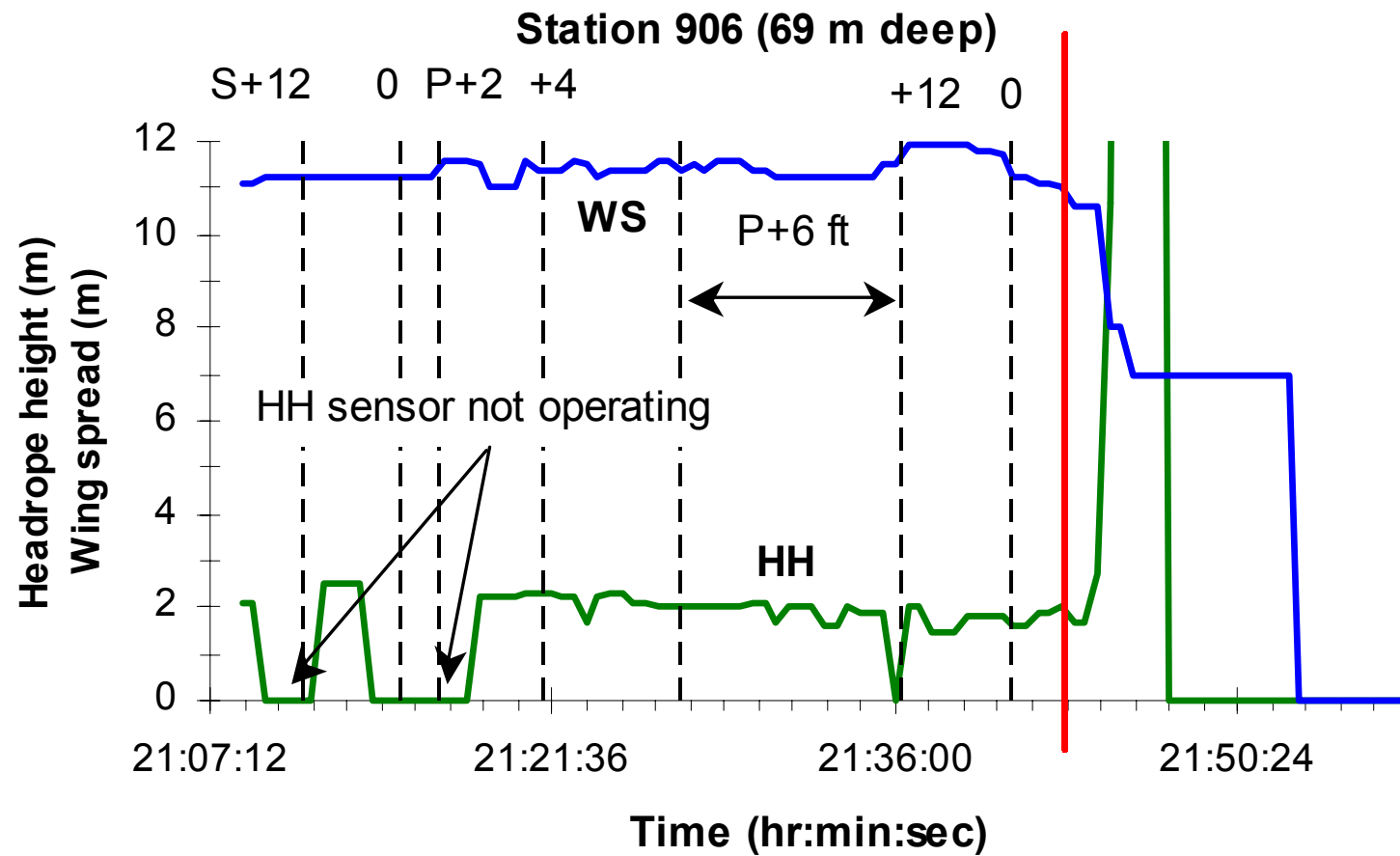
DS and WS have a geometric relationship with one another; only WS data will be presented today

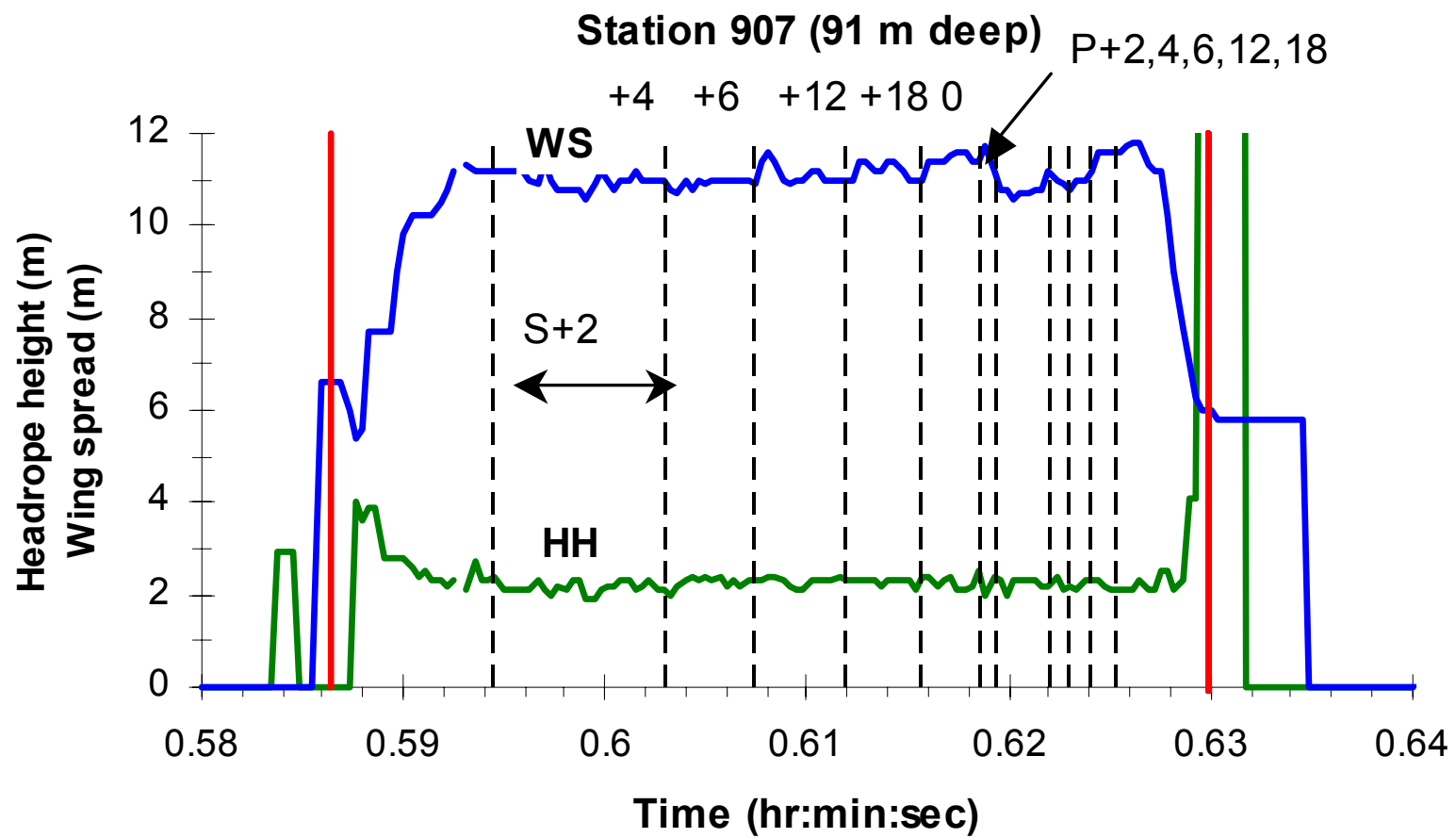


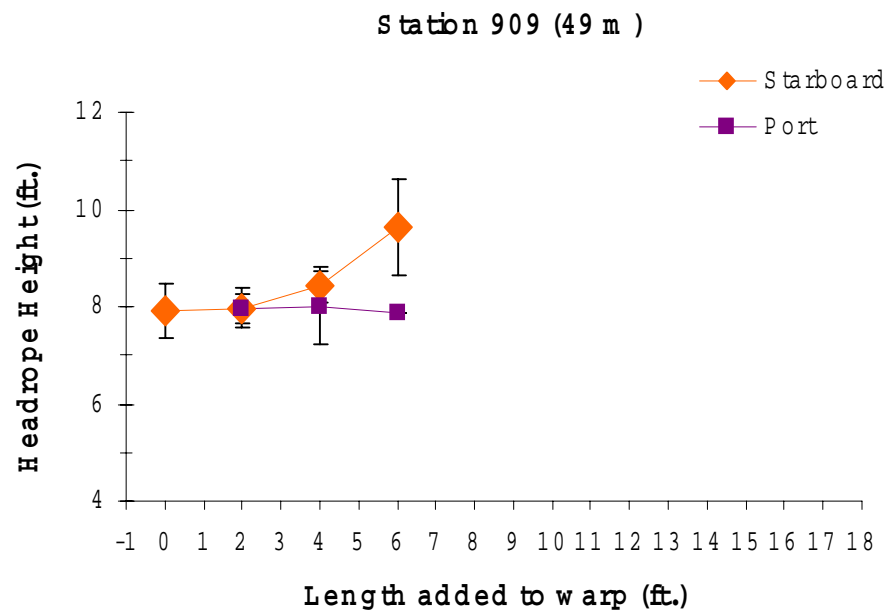
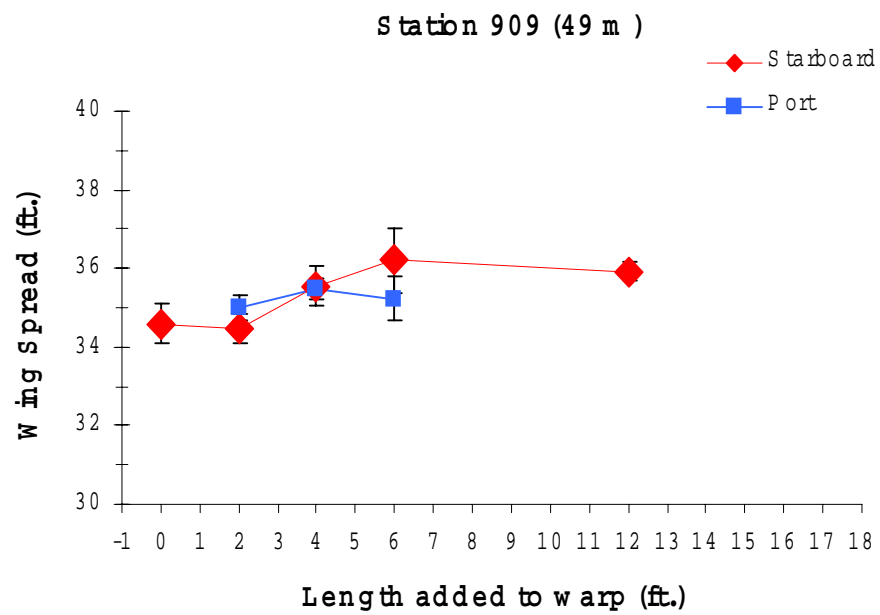


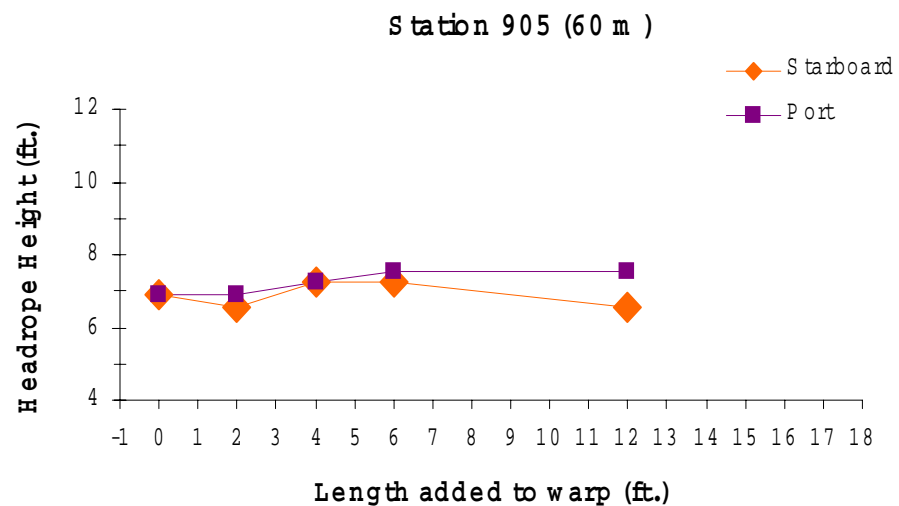
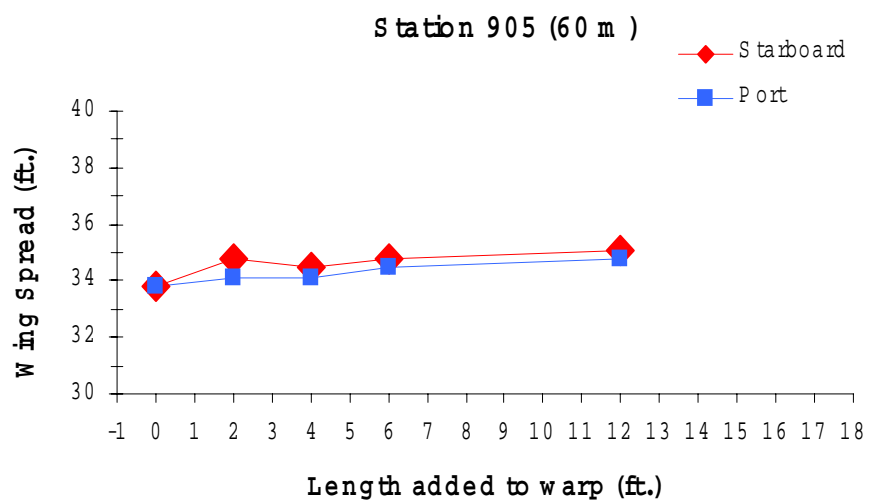
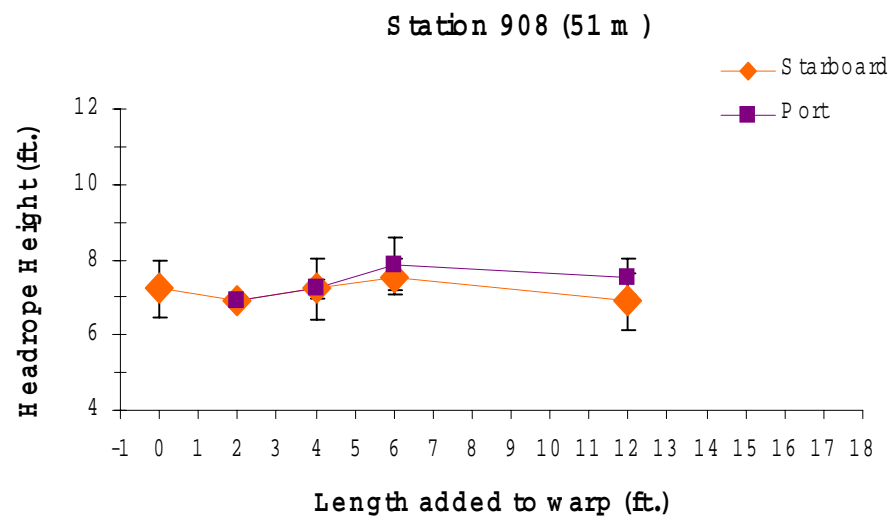
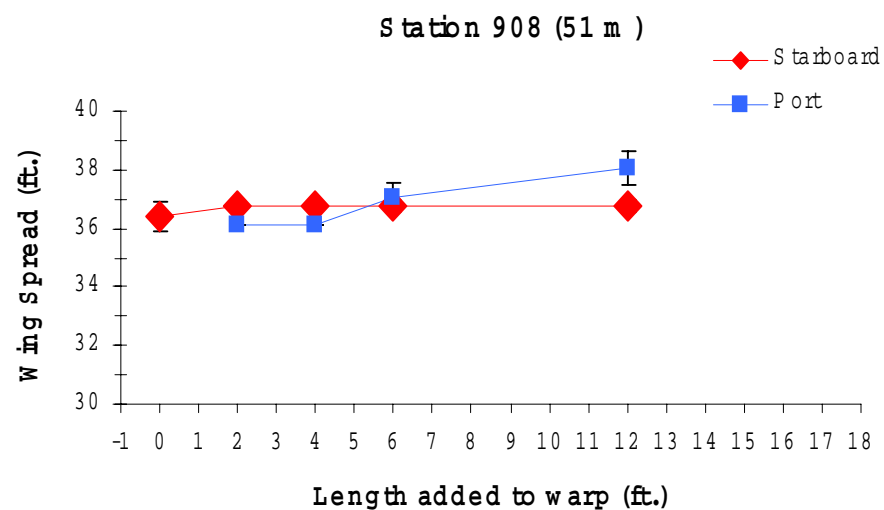




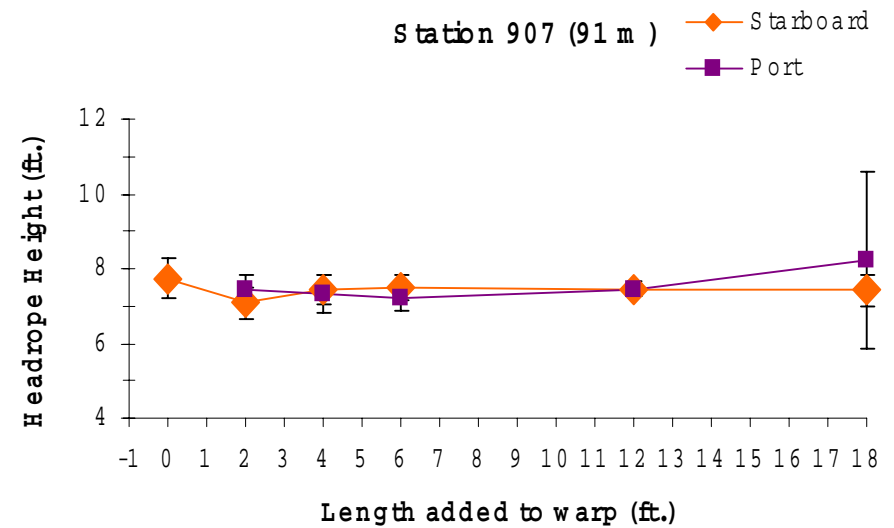
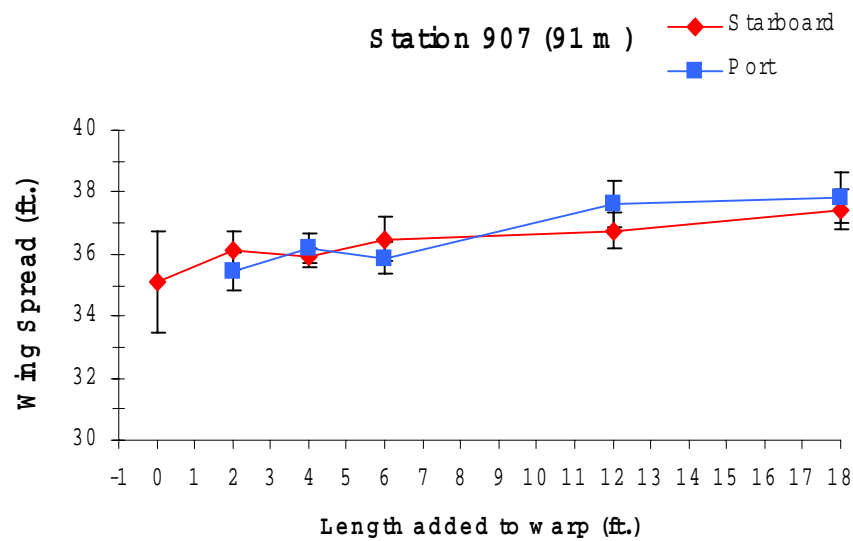
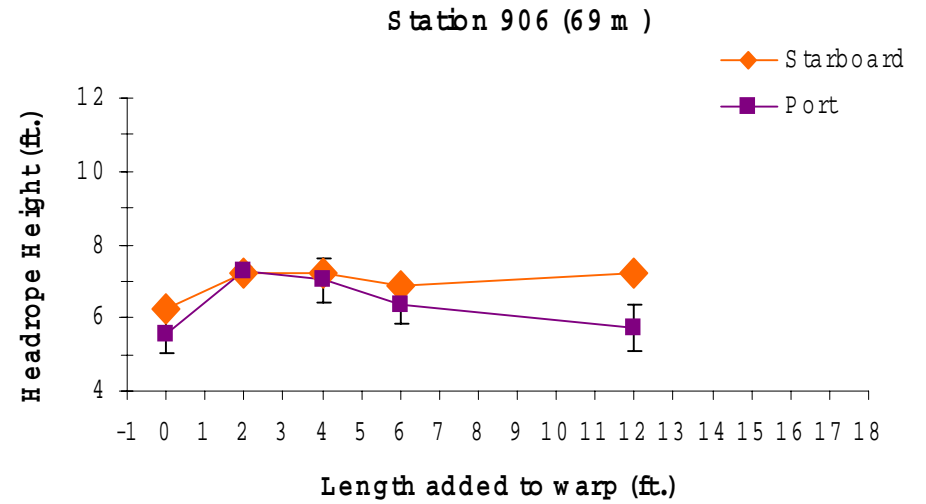
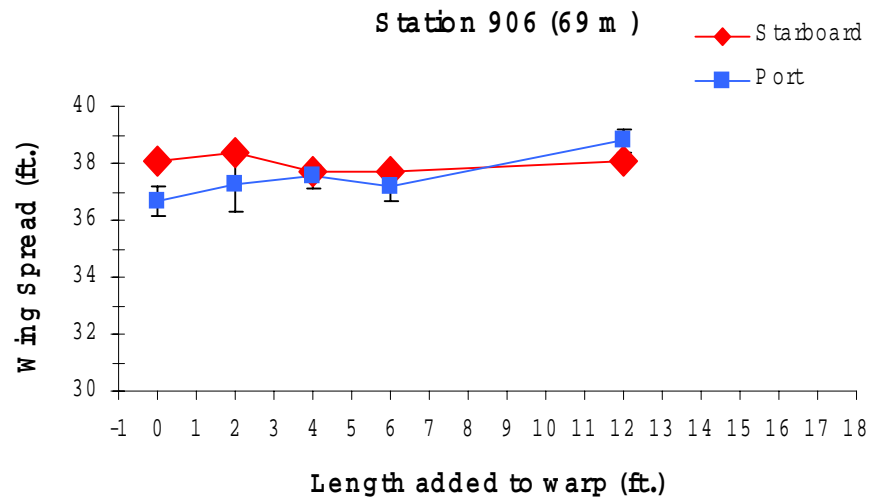




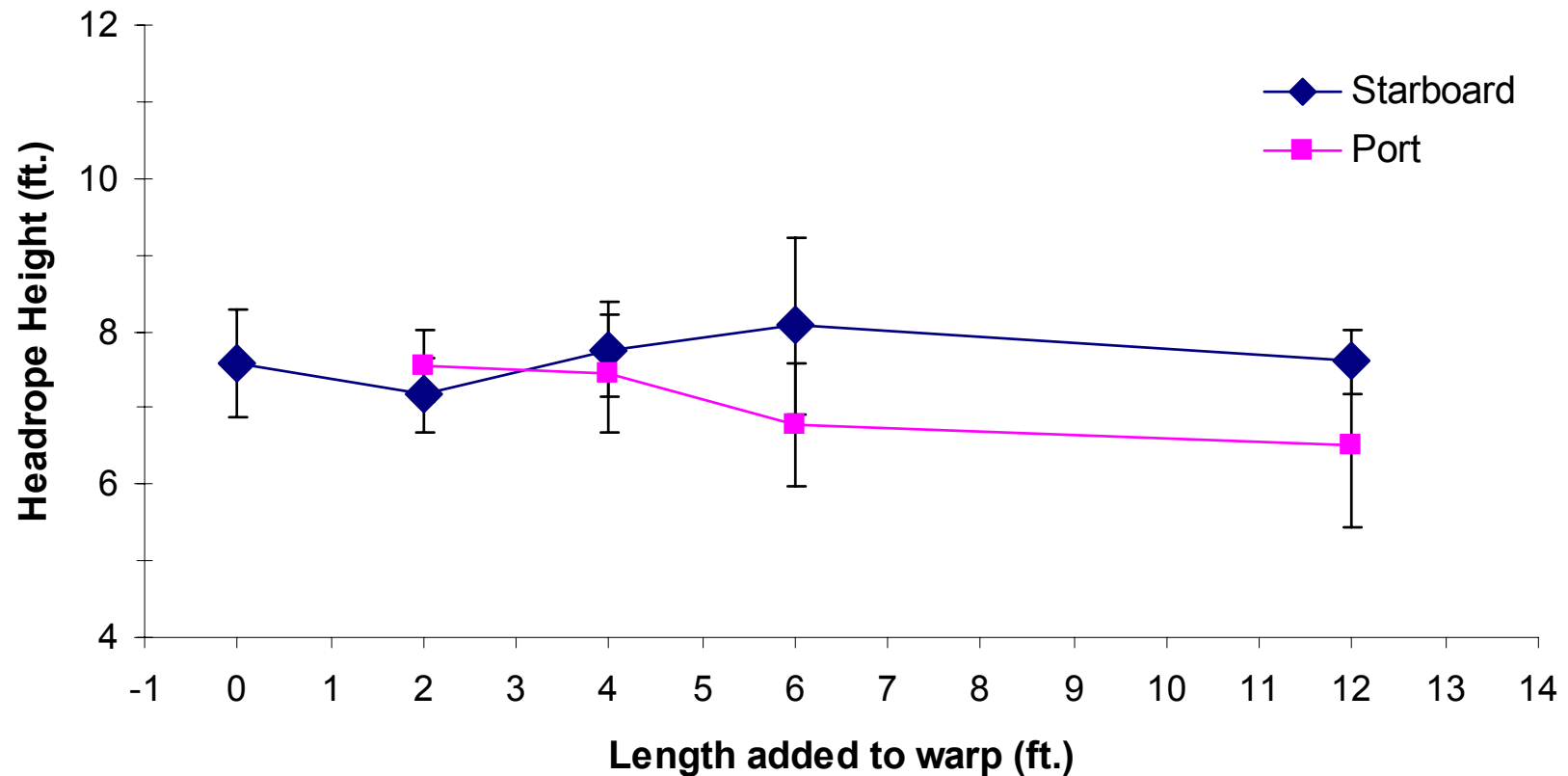




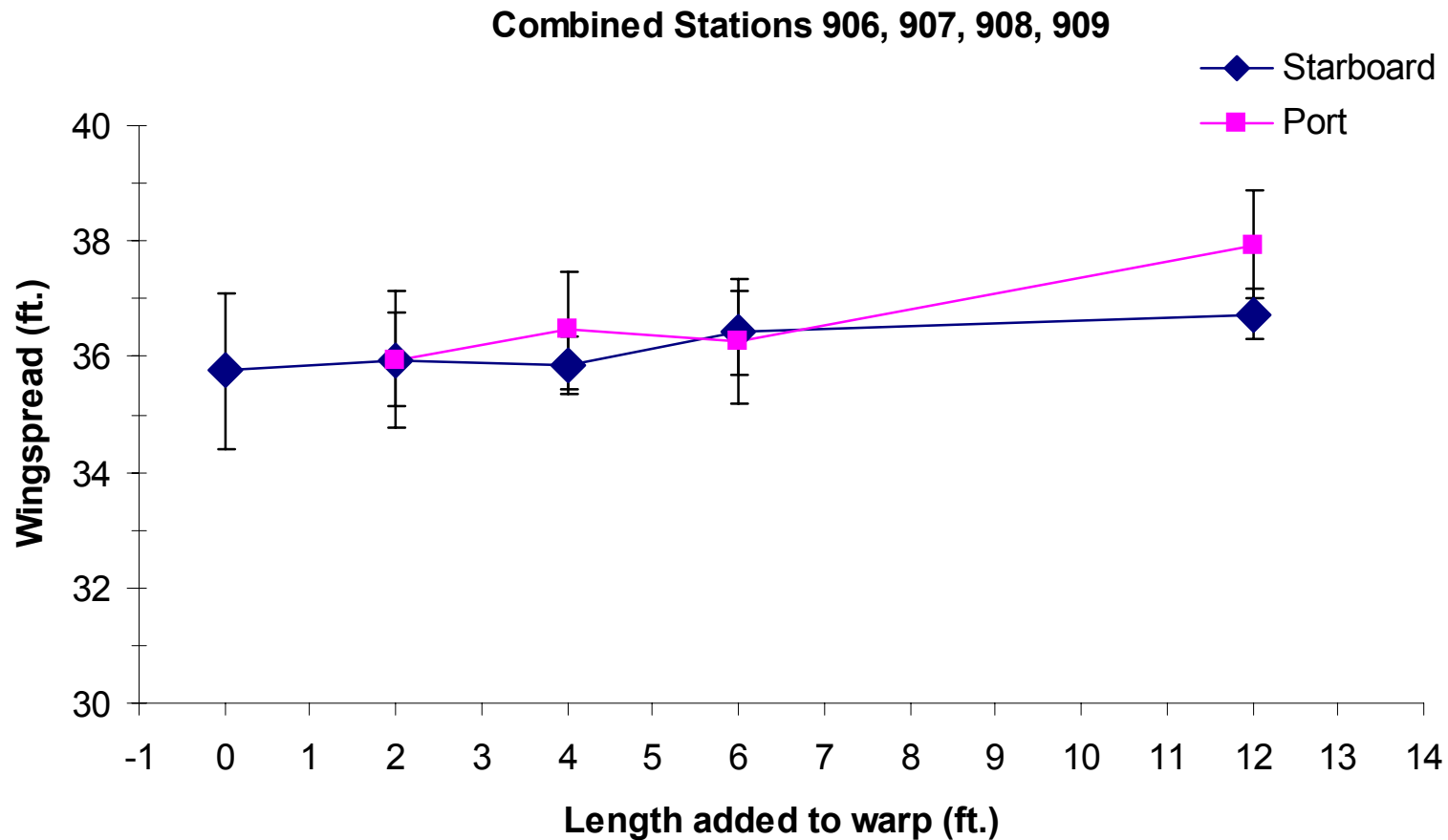
Note: station 905 values represent single readings



Combined Stations 906, 907, 908, 909



No significant difference between even warp lengths and warp length offsets of +2, +4, +6 and +12 ft. Starboard data for 0, +2, +4 and +6 ft. do not include station 906.



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Summary

Port and starboard WS means, for each warp treatment effect, were similar. The same holds true for HH means.

There was no significant difference detected between WS means for warp length offsets of 0-6 ft. at depths of 49-91 m. The same holds true for HH means.

Summary

Differences between HH means for even Warp lengths and warp length offsets of 12 ft. varied in significance between stations. This also holds true for WS means.

At the deepest station (91 m), there was no significant difference between HH means of warp length offsets of 0-18 ft. The same holds true for WS means for the starboard side.